



Department for
Energy Security
& Net Zero

Habitats Regulations Assessment for an Application Under the Planning Act 2008

Bramford to Twinstead Reinforcement

Regulation 63 of the Conservation of Habitats
and Species Regulations 2017

September 2024

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List of abbreviations

Term	Abbreviation
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Construction Environmental Management Plan	CEMP
Development Consent Order	DCO
Environment Agency	EA
Environmental Statement	ES
European Economic Area	EEA
Examining Authority	ExA
Functionally Linked Land	FLL
Habitat Regulations Assessment	HRA
Interested Parties	IPs
Likely Significant Effect	LSE
Nationally Significant Infrastructure Project	NSIP
National Site Network	NSN
Natural England	NE
Report on the Implications for European Sites	RIES
Special Areas of Conservation	SACs
Special Protection Areas	SPAs
Statement of Common Ground	SoCG
Statutory Nature Conservation Body	SNCB
Supplementary Advice on Conservation Objectives	SACO
The Planning Inspectorate	PINS
Zone of Influence	Zoi

1 Introduction

1.1 Background

This is a record of the Habitats Regulations Assessment (“HRA”) that the Secretary of State for Energy Security and Net Zero (“the Secretary of State”) has undertaken under the Conservation of Habitats and Species Regulations 2017¹ (“the Habitats Regulations”) as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (“the 2019 Regulations”) in respect of the Development Consent Order (“DCO”) for the Bramford to Twinstead Reinforcement and its associated infrastructure (the “Project”). The Examining Authority (“ExA”) defines this as the “Proposed Development”. For the purposes of these Regulations, the Secretary of State is the competent authority.

The Project comprises the reinforcement of the electricity transmission network between the existing Bramford Substation in Suffolk, and Twinstead Tee in Essex. It would involve the construction and operation of a new, 29km electricity transmission line, comprising approximately 18km of overhead line and 11km of underground cabling, with four cable sealing end compounds, and a new grid supply point substation. Approximately 25km of existing 132kV overhead line and 2km of existing 400kV overhead line would also be removed. The Project is described in more detail in Section 2.

The Project constitutes a nationally significant infrastructure project (“NSIP”) as defined by s.14(1)(b) of the Planning Act 2008 as it is for the installation of an electric line above ground of a length no less than 2km and a nominal voltage no less than 132kV.

The Project was accepted by the Planning Inspectorate (“PINS”) on 23 May 2023 and four Inspectors were appointed as the Examining Authority (“ExA”) for the Application. The Examination of the Project application began on 12 September 2023 and concluded on 12 March 2024. The ExA submitted its report of the examination including its recommendation (“the ExA’s Report”) to the Secretary of State on 12 June 2024. Numbered references to the ExA’s Report are presented in the format “[ER *.*]”.

This HRA also contains a consideration of the potential effects of the Project upon protected sites in European Economic Area (“EEA”) States (“transboundary sites”). This is described in more detail in Section 6.

1.2 Habitats Regulations Assessment

The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. In the UK, the Habitats Regulations apply as far as the 12 nautical miles limit of territorial waters.

¹ <https://www.legislation.gov.uk/ukxi/2017/1012/contents>

The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation (“SACs”). The Regulations also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas (“SPAs”). SACs and SPAs together, referred to as European sites in legislation, form part of the UK’s National Site Network (“NSN”).

The Convention on Wetlands of International Importance 1972 (“the Ramsar Convention”) provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the NSN (collectively referred to in this HRA as “protected sites”).

Regulation 63 of the Habitats Regulations provides that:

...before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, [the competent authority] must make an appropriate assessment of the implications for that site in view of that site’s conservation objectives.

And that:

In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

This Project is not directly connected with, or necessary to, the management of a protected site. The Habitats Regulations require that, where the Project is likely to have a significant effect (“LSE”) on any such site, alone or in-combination with other plans and projects, an appropriate assessment (“AA”) is carried out to determine whether or not the Project will have an adverse effect on the integrity (“AEol”) of the site in view of that site’s conservation objectives. In this document, the first stage assessment of LSEs and, where required, the second stage assessment of AA to determine whether there is an AEol of a protected site, are collectively referred to as the Habitats Regulations Assessment (HRA).

The Secretary of State has had regard to relevant guidance on the application of the HRA including the PINS (2022) Advice Note 10², European Commission guidance³, as well as joint guidance by DEFRA, Natural England (“NE”), the Welsh Government, and Natural Resources Wales (2021) on ‘Habitats Regulations Assessment: protecting a European site’⁴.

² <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/>

³ <https://op.europa.eu/en/publication-detail/-/publication/11e4ee91-2a8a-11e9-8d04-01aa75ed71a1>

⁴ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

1.3 Site conservation objectives

Where an AA is required in respect of a protected site, Regulation 63(1) of the Habitats Regulations requires that it be an AA of the implications of the plan or project for the site in view of its conservation objectives. Government guidance also recommends that in carrying out the LSE screening, applicants must check if the proposal could have a significant effect on a protected site that could affect its conservation objectives.

DEFRA Guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its conservation objectives⁵. It states that *“the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated”*.

Conservation objectives have been established by NE. When met, each site will contribute to the overall favourable conservation status of the species or habitat feature across its natural range. Conservation objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a ‘favourable condition’. An AEoI is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact.

NE has issued generic conservation objectives, which should be applied to each interest feature of the site. Supplementary advice on conservation objectives (“SACOs”) for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature. SACOs are subject to availability and are currently being updated on a rolling basis.

Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic objectives⁶ and apply them to the site-specific situation. For SPAs, the overarching objective is to avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Habitats Regulations. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the populations of the qualifying features; and
- the distribution of the qualifying features within the site.

⁵ <https://www.gov.uk/guidance/appropriate-assessment>

⁶ <http://publications.naturalengland.org.uk/publication/6734992977690624?cache=1656417868.31>

For SACs, the overarching objective is to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable conservation status of each of the qualifying features. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

The conservation objectives and, where available, supplementary advice on conservation objectives have been used by the Secretary of State to consider whether the Project has the potential to have an AEoI of sites, either alone or in-combination with other plans or projects.

The relevant SACOs, as published by NE and the Joint Nature Conservation Committee (“JNCC”), are referenced in Table 1 of this HRA.

1.4 The Report on the Implications for European Sites and statutory consultation

Under Regulation 63(3) of the Habitats Regulations the competent authority must consult the appropriate Statutory Nature Conservation Body (“SNCB”) and have regard to any representation made by that body within such reasonable time as the authority specifies. NE is the SNCB for England and for English waters within the 12 nm limit.

The ExA, with the support of the Inspectorate’s Environmental Services Team, produced a Report on the Implications for European Sites (“the RIES”) [PD-010]. The purpose of the RIES was to compile, document, and signpost information submitted by the Applicant and IPs during the Examination (up to 15 January 2024). It was issued to ensure that IPs, including NE as the SNCB under Regulation 5 of the Habitats Regulations, had been formally consulted on Habitats Regulations matters in respect of the Application for the Project during the Examination.

The RIES was published on the PINS NSIP website and the ExA notified IPs that it had been published. Consultation on the RIES was undertaken between 19 January 2024 and 15 February 2024. The Applicant [REP8-035] and NE [REP8-054] provided comments on the RIES. No other IPs provided comments on the RIES.

1.5 Documents referred to in this HRA

This HRA has taken account of, and should be read in conjunction with, the documents produced as part of the Application and Examination, which are available on the PINS NSIP website⁷. In particular:

- the ExA's Report;
- the RIES;
- the Applicant's assessment of effects, including:
 - the Applicant's Habitats Regulations Assessment Report ("HRA Report") [REP1-007];
- the Environmental Statement ("ES") [APP-069 – APP-085]; and
- the Statement of Common Ground ("SoCG") with NE [REP9-027] and the Environment Agency ("EA") [REP6-019].

Plus, all other information submitted during the Examination and during the Secretary of State's consideration of the Application.

The final signed SoCG between the Applicant and NE [REP9-027] was submitted at Deadline 9. The SoCG confirmed that all matters relating to HRA and otherwise were agreed between the two parties, and that there were no HRA matters outstanding between them in respect of the Project.

⁷ <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN020002>

2 Project description

The Project is located within the administrative areas of Mid Suffolk District Council, Babergh District Council, and Braintree District Council. The proposed transmission line generally follows the route of an existing 400kV overhead line between the Bramford Substation and Twinstead Tee. The location of the Project is shown in the Location Plan [APP-007], as well as the Land Plans [APP-008 – APP-010] and is described in detail in ES Chapter 4 [APP-072].

The Project comprises:

- The reinforcement of the transmission network between the existing Bramford substation and Twinstead Tee through the construction and operation of 29km of new 400kV transmission line, comprising:
 - Approximately 18km of overhead line, with approximately 50 pylons;
 - Approximately 11km of underground cable with associated joint bays and above-ground link pillars
- Four cable sealing end compounds, each with security fencing, electrical equipment, support structures, a control building, and an access track
- The removal of 27km of existing overhead transmission line and associated pylons
- A new grid supply point substation with access, replacement pylons, transformers, switchgear and other electrical equipment, a sealing end compound, underground cabling, office and welfare facilities, and utility connections
- Associated development in connection with the aforementioned works.

The site is split into the following parcels:

- **Section AB:** Bramford Substation/Hintlesham;
- **Section C:** Brett Valley;
- **Section D:** Polstead;
- **Section E:** Dedham Vale Area of Outstanding Natural Beauty;
- **Section F:** Leavenheath/Assington;
- **Section G:** Stour Valley; and
- **Section H:** Grid Supply Point Substation

2.1 Changes to the Application during Examination

No formal change requests were made by the Applicant during the Examination.

The Applicant submitted several revisions to the application documents, details of which can be found in the Navigation Document submitted at Deadline 10 [REP10-002]. This provides a guide to all documents submitted as part of the Application and was updated at each Deadline when new or revised documents were submitted. It provides a record of all documentation submitted into the Examination by the Applicant.

3 Stage 1: Screening for Likely Significant Effects (“LSEs”)

Under Regulation 63 of the Habitats Regulations, the Secretary of State must consider whether the Project will have an LSE on a protected site, either alone or in-combination with other plans or projects. The purpose of this section is to identify any LSEs on protected sites that may result from the Project and to record the Secretary of State’s conclusions on the need for an AA.

Using the screening criteria detailed within LA 115 HRA of the Design Manual for Roads and Bridges (DMRB), the Applicant did not identify any protected sites within 2km of the Project, or protected sites within 30km of the Project that have bats as a qualifying feature. The Applicant also considered whether there was functionally linked land (FLL) used by ornithological features of protected sites within the Order Limits and surrounding area. Although the DMRB guidance is designed for highway schemes, the Applicant, the ExA, and NE were satisfied that the screening criteria is suitable and transferable for assessing other types of large linear projects, such as the reinforcement of transmission networks.

The protected sites and qualifying features that were considered in the Applicant’s screening exercise are presented in Section 3 and Table 3.1 of the HRA Report [REP1-007]. The Applicant screened the following protected sites for inclusion within the assessment, as illustrated in Figure 1:

- Stour and Orwell Estuaries SPA (5.72km south-east)
- Stour and Orwell Estuaries Ramsar Site (5.72km south-east)

NE [REP8-054] confirmed that the protected sites identified by the Applicant are those relevant to the Project. The protected sites and qualifying features identified by the Applicant were not disputed by any IP during the Examination [ER 4.4.1].

Based on the information before him, the views of IPs and NE, as well as the recommendations of the ExA, the Secretary of State is content to adopt the rationale of the Applicant, NE, and the ExA that the DMRB is an appropriate screening criteria and the correct protected sites and qualifying features have been identified.

3.1 Likely Significant Effects alone

The Applicant identified the impacts, considered to have the potential to result in LSEs, from the Project alone in Section 5 of the HRA Report.

The following impacts considered by the Applicant to have the potential to result in LSEs on protected sites during construction, operation, and decommissioning of the Project were:

- Habitat loss (from loss of functionally linked land);
- Fragmentation of habitats (fragmentation of habitat during construction of underground cables and operational barriers to birds in flight);
- Reduction in species density (mortality or injury risk during vegetation clearance on functionally linked land, collision with overhead lines, mortality of Ramsar designated aquatic invertebrates and degradation or reduction in distribution or extent of Ramsar designated plants);
- Disturbance or displacement (noise, visual, lighting and avoidance); and
- Changes in key indicators of conservation value (changes to air, surface, water and groundwater quality).

The protected sites affected, and the potential impact pathways are provided in Table 5.1 of the HRA Report.

NE [REP9-027] confirmed that it agreed with the impact pathways identified in the HRA Report.

The HRA Report concluded that the Project alone could have a LSE on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site from changes in key indicators of conservation value (surface water and groundwater quality) during construction of the Project. For the other impact-effect pathways identified, the HRA Report concluded that the Project alone would have no LSE on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site, as neither protected site nor any FLL connected to the two protected sites lie within the Zone of Influence of the Project.

The conclusions of the HRA Report in relation to both the Stour and Orwell Estuaries SPA and Ramsar Site and their qualifying features were not disputed by NE [REP9-027] or any other IPs during the Examination.

NE and the ExA was satisfied that the correct impact-effect pathways on each site were assessed and that there would only be a LSE from the Project alone to the Stour and Orwell Estuaries SPA and Ramsar site from changes in key indicators of conservation value (surface water and groundwater quality) during construction of the Project [ER 4.2.2].

Based on the information before him, the views of IPs and NE, as well as the recommendations of the ExA, the Secretary of State is content to adopt the rationale of the Applicant, NE, and the ExA that there could be a LSE on the identified protected sites from the Project as a result of changes in key indicators (surface water and groundwater quality).

3.2 Likely Significant Effects in-combination

The Applicant identified the impacts, considered to have the potential to result in LSEs, from the Project in-combination with other plans or projects as detailed in Section 2.7 of the HRA Report.

The HRA Report concluded that the Project in-combination with other plans or projects could have a LSE on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site from changes in key indicators of conservation value (surface water and groundwater quality) during construction of the Project. For the other impact-effect pathways identified, the HRA Report concluded that the Project in-combination would have no LSE on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site, as these were excluded from the assessment of alone LSE and thus incapable of contributing to an in-combination LSE with other plans or projects.

NE [REP9-027] did not dispute the Applicant's approach to the assessment of in-combination effects.

The ExA was satisfied with the Applicant's approach to the assessment of in-combination effects and agreed with the conclusion that there would only be a LSE from in-combination effects arising from the Project with other plans and projects in relation to changes in key indicators of conservation value (surface water and groundwater quality) [ER 4.2.2].

Based on the information before him, the views of IPs and NE, as well as the recommendations of the ExA, the Secretary of State is content to adopt the rationale of the Applicant, NE, and the ExA that there would be a in-combination LSE to the identified protected sites from the Project as a result of changes in key indicators (surface water and groundwater quality).

3.3 Likely Significant Effects conclusion

The Secretary of State has carefully considered the potential effects of the Project on all qualifying features of the protected sites raised during the Examination, taking into account their conservation objectives, to determine whether there will be LSEs in the context of the Habitats Regulations. The Secretary of State considers that sufficient information has been provided to inform an assessment in line with his duties under the Habitats Regulations.

Two protected sites and their qualifying features were considered in the Applicant's assessment of LSE: Stour and Orwell Estuaries SPA and Stour and Orwell Estuaries Ramsar Site. The HRA Report [REP1-007] subsequently concluded that a LSE from the Project, alone and in-combination with other plans or projects, on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site could not be excluded from changes to surface water and groundwater during construction of the Project.

NE [REP9-027] considered that the correct protected sites and impact pathways had been assessed in the HRA Report and agreed with the conclusion that a LSE from the Project, alone and in-combination, would occur to the Stour and Orwell Estuaries SPA and Ramsar Site from changes to surface water and groundwater.

The ExA also considered that the correct protected sites and impact pathways had been assessed in the HRA Report and agreed with the conclusion that a LSE from the Project, alone and in-combination, could occur to the Stour and Orwell Estuaries SPA and Ramsar Site from changes to surface water and groundwater [ER 4.2.2].

Based on the information before him, the views of IPs and NE, as well as the recommendations of the ExA, the Secretary of State concludes that a LSE from the Project, alone and in-combination with other plans or projects, on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site could occur from changes to surface water and groundwater during construction of the Project. The LSEs are therefore taken forward to AA to consider whether the Project would result in an AEoI of the identified protected sites. Table 1 presents the protected sites for which the Secretary of State considers that significant effects cannot be excluded, either alone or in-combination, alongside the qualifying features and relevant impact pathways. The Secretary of State is content that the other impact-effect pathways considered can be screened out of further assessment.

4 Appropriate Assessment methodology

The requirement to undertake an AA is triggered when a competent authority, in this case the Secretary of State, determines that a plan or project is likely to have a significant effect on a protected site either alone or in-combination with other plans or projects. Guidance issued by DEFRA⁸ states that the purpose of an AA is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in-combination with other plans and projects, and that the conclusions should enable the competent authority to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus is therefore specifically on the species and/or habitats for which the protected site is designated.

In line with the requirements of Regulation 63 of the Habitats Regulations:

“In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.”

The purpose of this AA is to determine whether an AEoI on the features of the two protected sites identified in Table 1 of this HRA, as a result of the Project alone or in-combination with other plans or projects, can be excluded in view of the site's conservation objectives and using the best scientific evidence available.

In accordance with the precautionary principle embedded in the integrity test and established through case law, the Secretary of State may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the protected site, and this must be demonstrated beyond all reasonable scientific doubt. If the Secretary of State cannot exclude AEoI of the affected protected sites beyond all reasonable scientific doubt, then he can only agree to a plan or project if it complies with the requirements of Regulation 64 of the Habitats Regulations. Regulation 64 provides that the Secretary of State may agree to the plan or project only if satisfied that there are no alternative solutions, and that the plan or project must be carried out for imperative reasons of overriding public interest (IROPI).

8 <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

5 Stage 2: Appropriate Assessment

The Secretary of State has undertaken an objective scientific assessment of the implications of the Project on the qualifying features of the protected sites identified in his screening assessment, using the best scientific evidence available. The assessment has been made in light of the site's conservation objectives, which are set out in Table 1 of this HRA.

5.1 Effect pathway

The LSE considered by the Secretary of State to have the potential to result in an AEoI on the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site is:

- Changes in key indicators of conservation value (surface water and groundwater quality).

5.2 Surface Water and Groundwater Quality

In Section 6 of the HRA Report [REP1-007], the Applicant assessed the potential for an AEoI of the Stour and Orwell Estuaries SPA and Ramsar Site from the Project alone and in-combination with other plans and projects as a result of changes in surface water and groundwater quality during construction.

The HRA Report concluded that, with the implementation of appropriate mitigation measures, there would be no AEoI from the Project alone as these measures would reduce the likelihood of effect such that a potential impact from pollution and sedimentation incidents would be avoided. The HRA Report further concluded that as these appropriate mitigation measures would avoid a potential impact from pollution and sedimentation incidents, there would also be no AEoI from the Project in-combination with other plans and projects.

However, during the Examination, NE [RR-042] raised a number of concerns as to the adequacy of the Applicant's proposed mitigation measures. NE requested the following:

- Further detail for good practice measures GH06 (foundation risk assessment) and GH07 (hydrogeological risk assessment) within the CoCP to include a requirement to consider potential risks to the identified protected sites; and
- A detailed contingency plan for bentonite (or other lubricant) breakout, should it occur during construction.

The Applicant [REP1-025] stated that the proposed foundation and hydrogeological risk assessments would consider risks to all relevant receptors, including the Stour and Orwell Estuaries SPA and Ramsar Site, should a pathway be identified.

NE [REP2-026] welcomed the Applicant's amendments to good practice measures GH06 and GH07, which were added in an updated CoCP [REP3-026].

Further to this, NE requested to be a named consultee on the hydrogeological risk assessment and stated that the CEMP and CoCP should only be secured once further details on the foundation and hydrogeological risks assessments have been provided and agreed.

In response, the Applicant [REP3-048] stated that the EA was the relevant authority for surface and groundwater quality and, as such, best placed to approve the hydrogeological risk assessment. The Applicant stated that if the EA was satisfied there was no risk to watercourses within the Order Limits, then it can be concluded there was no risk to the identified protected sites.

NE, in an updated SoCG [REP5-011], acknowledged the Applicant's response but stated that whilst the EA is the relevant authority for surface and groundwater quality, NE is an advisor to other competent authorities as the SNCB under Regulation 5 of the Habitats Regulations and therefore considers it should be consulted.

The ExA [PD-008] requested NE and the EA to explain the process that could be followed to ensure that NE was consulted on the hydrogeological risk assessment. The ExA also requested the Applicant to submit without prejudice draft wording for Requirement 4 of the dDCO [REP5-005] that would treat the submitted management plans, including the CEMP, as outline versions.

The EA requested that the Applicant consult both NE and the EA so both could provide their respective responses. NE [REP7-038] requested the same opportunity as the EA to comment on the assessment. NE further stated that it could not comment on how it would be consulted as it was unclear what approval mechanism was proposed by the Applicant.

The Applicant [REP7-025] provided alternative wording for Requirement 4 of the dDCO on a without prejudice basis. The alternative wording would require submission of a final CEMP, substantially in accordance with the outline CEMP, and approval by the relevant planning authority and other discharging authority prior to the commencement of the Project.

The ExA [PD-010] sought comments from NE on the alternative wording submitted by the Applicant. NE [REP8-054] confirmed that it considered the alternative wording sufficient to ensure that the CEMP and CoCP would not be finalised until the outcome of the hydrogeological risk assessment was known.

The ExA [PD-010] also sought comments from the Applicant on NE's request to be consulted on the hydrogeological risk assessment. The Applicant [REP8-035] agreed to amend good practice measure GH07 to include a commitment to submit the assessment to NE, together with the EA's contact information, so that NE could provide comments to the EA as part of the hydrogeological risk assessment approval process.

The ExA noted that, in the final version of the CoCP [REP9-035], good practice measure GH07 would require a hydrogeological risk assessment to be undertaken once trenchless crossing methods have been confirmed, with risks assessed to include consideration of a contingency for the breakout of bentonite and other agents. The ExA also noted that GH07 would require mitigation measures or alternative crossing methods to be proposed, assessed, and used if unacceptable risks to surface and groundwater quality were identified in the hydrogeological risk assessment. The ExA noted that it also includes a commitment for NE to be involved in the EA approval process for the hydrogeological risk assessment.

NE [REP8-054] confirmed that its request for a detailed bentonite breakout contingency plan and to be a named consultee for the hydrogeological risk assessment had been resolved based on the revised wording for GH07 [REP9-035].

The ExA [PD-005] also sought confirmation from the EA that it was confident that sufficient controls were in place to ensure that construction activities in Flood Zone 3, including horizontal directional drilling under the River Stour, would not result in AEoI of the identified protected sites. The EA [REP3-070] confirmed that if the CEMP and CoCP were implemented, it was satisfied the Project would not result in an AEoI of the identified protected sites.

The ExA [PD-008] also sought confirmation from NE. NE [REP7-038] considered that sufficient information had not been provided as the method of construction had not been confirmed. The ExA [PD-010] then asked NE whether there was sufficient control in the CEMP and CoCP, as well as the requirement to obtain a flood risk activity permit, for it to be satisfied that an AEoI could be avoided. NE [REP8-054] confirmed that there were sufficient controls but noted that its response was made based upon the Applicant's alternative wording for Requirement 4 being incorporated into the final DCO.

Subject to the implementation of the mitigation measures identified in the HRA Report and set out in the CoCP, the ExA was satisfied that the LSE from changes in key indicators of conservation value (surface water and groundwater quality) from construction of the Project would not result in an AEoI, alone or in-combination with other plans and projects, to the Stour and Orwell Estuaries SPA and Ramsar Site [ER 4.4.2].

The ExA was also satisfied that through the revised good practice measure GH07 in the CoCP, the Applicant will be required to undertake a hydrogeological risk assessment once construction methods, including any horizontal directional drilling in Flood Zone 3, are confirmed and that this assessment would identify any mitigation or alternative methods if an unacceptable risk to surface or groundwater quality was identified. The ExA was also satisfied that the revised GH07 would require the Applicant to obtain EA approval for the hydrogeological risk assessment prior to construction commencing and that NE would be consulted as part of this process.

On that basis, the ExA was satisfied that the concerns of NE had been addressed and that the Applicant's without prejudice alternative wording for Requirement 4 did not need to be incorporated into the recommended DCO.

Whilst the Secretary of State agrees with the conclusions of the ExA in relation to the revised good practice measure GH07, to ensure sufficient control mechanisms are in place in line with advice from NE, the Secretary of State has incorporated the without prejudice alternative wording provided by the Applicant for Requirement 4 into the final Order.

Other than good practice measures GH06 and GH07, the Secretary of State also notes a number of mitigation measures identified in Table 6.1 of the HRA Report intended to avoid a potential impact from pollution and sedimentation incidents. Good practice measure GG15, for instance, commits to the control of runoff across the site through buffer zones around watercourses, silt traps and bunding, and daily inspection of drains and watercourses near work activity to ensure surface and groundwater quality is safeguarded. GG22 also commits to the development of a Emergency Action Plan which will contain procedures to be implemented in case of unplanned events, including flooding and pollution incidents. Good practice measure W02 would also prevent refuelling of any plant or vehicle within 15m of a watercourse and the storing of soil

stockpiles within 15m of a main river. The Secretary of State notes that such mitigation measures are set out in the CoCP, adherence to which would be secured through implementation of the CEMP as required by the Order.

Ultimately, based on the information before him, and subject to the mitigation measures as secured in the final Order, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the integrity of the qualifying feature of the Stour and Orwell Estuaries SPA and Ramsar Site.

5.3 Appropriate Assessment conclusion

As the competent authority under the Habitats Regulations for this Application under the Planning Act 2008, the Secretary of State has undertaken an AA in respect of the conservation objectives of two protected sites to determine whether the Project, either alone or in-combination with other plans or projects, will result in an AEoI.

The Secretary of State has carefully considered all the information available to him, including the recommendations of the ExA, the advice of NE as the SNCB, the views of all other IPs, and the Applicant's case.

Based on the available information before him, and subject to the mitigation measures as secured in the final Order, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, will not adversely affect the qualifying features of the Stour and Orwell Estuaries SPA and Ramsar Site. The Secretary of State is satisfied that further tests set out in the Habitats Regulations are therefore not required.

6 Transboundary assessment

The Secretary of State considers that it is important to consider the potential impacts on protected sites in other European Economic Area (“EEA”) states, known as transboundary sites. The ExA also considered the implications for transboundary sites. The conclusions of the ExA’s considerations and the Secretary of State’s own views on this matter are presented below.

On 30 June 2021, following the Applicant’s request for an EIA scoping opinion, PINS undertook a transboundary screening and consultation on behalf of the Secretary of State pursuant to Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the United Nations Environment Programme Convention on Biological Diversity 1992. A second and final screening was undertaken on 8 June 2023 following submission of the Application documents. PINS considered that the Project was unlikely to have a significant effect either alone or in-combination on the environment in an EEA state.

Potential transboundary impacts were considered in the Applicant’s ES [APP-087] and HRA Report [REP1-007]. The Secretary of State notes that the Applicant considered non-UK protected sites in its Application and concluded that there would be no LSE from the Project alone and in-combination on any transboundary sites.

NE [REP9-027], in their final SoCG, considered that the correct protected sites and qualifying features had been considered in the Applicant’s HRA Report.

The ExA was satisfied that, on the basis of the information provided by the Applicant and NE’s agreement that the correct sites had been considered in the HRA Report, that the Project would not have an LSE on protected sites in any EEA state [ER 4.4.1].

The Secretary of State has not been presented with any substantive evidence to demonstrate that transboundary impacts would have an AEol on any protected site in an EEA states. As such, the Secretary of State is satisfied that the Project, either alone or in-combination with other plans or projects, would not have an AEol on any transboundary protected site. The Secretary of State is satisfied that further stages of a transboundary assessment are therefore not required.

7 Conclusion

The Secretary of State has carefully considered all information presented within the Application, during the Examination, and the representations made by NE and all IPs, along with the ExA's Recommendation Report.

The Secretary of State concludes that LSEs cannot be excluded at two protected sites, when the Project is considered alone or in-combination with other plans or projects. These LSEs were taken forward to an AA to consider whether the Project would result in an AEol of the protected sites.

Having considered the information available to him and having made a full assessment of the potential for an AEol of each of the protected sites for which the potential for LSE was identified, taking into account the views of the Applicant, NE, all IPs, as well as the ExA, the Secretary of State concludes that an AEol can be excluded beyond reasonable scientific doubt, subject to the measures secured through the final Order.

As such, the Secretary of State is satisfied that there is no significant risk to any protected site and their qualifying features as a result of the Project and considers that no further tests set out in the Habitats Regulations are required.

Table 1: Protected sites and qualifying features considered in the assessment of LSE.

Protected site	Qualifying feature(s)	SACOs	Potential for Likely Significant Effects
Stour and Orwell Estuaries SPA	Dark-bellied brent goose (non-breeding) Northern pintail (non-breeding) Pied avocet (breeding) Grey plover (non-breeding) Red knot (non-breeding) Dunlin (non-breeding) Black-tailed godwit (non-breeding) Common redshank (non-breeding) Waterbird assemblage	See footnote ⁹	Changes in key indicators of conservation value (surface water and groundwater quality) (alone and in-combination)
Stour and Orwell Estuaries Ramsar Site	Ramsar Criterion 2 – Seven nationally scarce plants and five British Red Data Book invertebrates Ramsar Criterion 5 – Waterfowl assemblages of international importance	N/A	Changes in key indicators of conservation value (surface water and groundwater quality) (alone and in-combination)

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<https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9009121&SiteName=stour%20and%20orwell&SiteNameDisplay=Stour+and+Orwell+Estuaries+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArae=&NumMarineSeasonality=8>

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	Ramsar Criterion 6 – Species populations occurring at levels of international important (concurrent with species listed as SPA qualifying features)		
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